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| Baker Botts LLP<br>2001 Ross Avenue<br>Dallas, TX 75201-2980 |             |                      |                                   |                  |
|  |             |                      | EXAMINER<br>THANGAVELU, KANDASAMY |                  |
|  |             |                      | ART UNIT<br>2123                  | PAPER NUMBER     |
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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/662,366

Applicant(s)

CHAPMAN, BARRY L.

Examiner

Kandasamy Thangavelu

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

### A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on September 13, 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**DETAILED ACTION**

***Introduction***

1. This communication is in response to the Applicants' Response mailed on March 16, 2004. Claim 8 was cancelled. Claims 1, 4 and 9 were amended. Claims 1-7 and 9-13 of the application are pending. This office action is made non-final.

***Response to Arguments***

2. Applicants' amendments filed on March 16, 2004 have been fully considered. Claim rejections under 35 USC 112 First Paragraph and Second Paragraph are withdrawn in response to Applicant's arguments. New claim rejections under 35 USC 112 First Paragraph and 35 USC 101 are included in this Office Action in response to claim amendments made. New claim rejections under 35 USC 103 (a) are also included in this office action. Examiner's response to Applicant's arguments is presented in Paragraph 13 below.

***Claim Rejections - 35 USC § 112***

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3. The following is a quotation of the first paragraph of 35 U.S.C. §112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 9 states, in part “determining whether the number of the components corresponding to ***at least one of the first and second component classes*** cumulatively represent at least 40% of the total number of the components in each of the products”. There is no support for this in the specification. The specification, Page 46, Lines 24-26 state the requirement, as “***the total percentage of components corresponding to both of classes 1 and 2*** should be at least 40% of the total number of components”.

Claim 9 states, in part “responding to a determination that the number of the components corresponding to ***at least one of the first and second component classes*** does not cumulatively represent at least 40% of the total number of the components in each of the products by effecting an adjustment which causes one of the components determined to correspond to the third component class to be treated as corresponding to the second component class rather than the third component class

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thereby adjusting the definition of the combination of components". There is no support for this in the specification. The specification, Page 46, Lines 24-26 state the requirement, as **"the total percentage of components corresponding to both of classes 1 and 2** should be at least 40% of the total number of components".

### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 9 is rejected under 35 U.S.C. 101 because the disclosed invention lacks utility.

Claim 9 states, in part "determining whether the number of the components corresponding to at least one of the first and second component classes cumulatively represent at least 40% of the total number of the components in each of the products". The specification does not describe how this requirement is used in

"identifying a criteria set having a plurality of different states which each correspond to a respective one of said products; and

associating with each said state of said criteria set a definition of a combination of the components from said component group which is present in the corresponding product",

as claimed in claim 1. Therefore, it is not clear why this requirement "at least one of said first and second component classes cumulatively represent at least 40% of the total number of

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said components” is claimed and how it could be used in the configuration of products advantageously.

7. Claim 9 is rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility.

Claim 9 states in part “responding to a determination that the number of the components corresponding to at least one of the first and second component classes does not cumulatively represent at least 40% of the total number of the components in each of the products by effecting an adjustment which causes one of the components determined to correspond to the third component class to be treated as corresponding to the second component class rather than the third component class thereby adjusting the definition of the combination of components”.

One of ordinary skill in the art would treat second component class involving components that are required in each the product but that vary among the products with respect to at least one of quantity and type and the third component class involving components that are present in some but not all of the products separately, since the second class components are required for basic functional operation of the product, while the third class components are not required for basic functional operation of the product. By moving third class optional components that provide optional functions to the required but variable second class, the basic cost of the product will be increased, while providing the optional function. Therefore, one of ordinary skill in the art will not be motivated, but will be dissuaded to do so.

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Claim 9 states, in part “by effecting an adjustment which causes one of the components determined to correspond to the third component class to be treated as corresponding to the second component class rather than the third component class thereby adjusting the definition of the combination of components”. The specification does not describe how this requirement is used in

“identifying a criteria set having a plurality of different states which each correspond to a respective one of said products; and

associating with each said state of said criteria set a definition of a combination of the components from said component group which is present in the corresponding product”,

as claimed in claim 1. Therefore, it is not clear why this requirement “adjusting the definition of the combination of components” is claimed and how it could be used in the configuration of products advantageously.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

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9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-3, 5, 6 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lynch et al. (LY)** (U.S. Patent application 2002/0035463) in view of **Deang (DE)** (IEEE, 1998).

10.1 **LY** teaches method and apparatus for configuring systems. Specifically, as per Claim 1, **LY** teaches a method for facilitating configuration of one of a plurality of different products from a set of components which can be selectively combined in different ways to form a plurality of different component combinations that each serves as a respective product (Abstract, L1-4; Page 1, Para 0004; Page 3, Para 0029; Page 15, Para 0169); comprising the steps of:

determining whether each component in the set corresponds to a first component class involving components that are required in each product without variation in quantity and type (Abstract, L11-17; Page 3, Para 0025; Page 4, Para 0037 and Para 0038; Page 7, Para 0084; Page 10, Para 0121; Page 14, Para 0164 and 0165);

determining whether each component in the set corresponds to a second component class involving components that are required in each product but that vary among the products with



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respect to at least one of quantity and type (Page 8, Para 0100; Page 9, Para 0104, Para 0114 and Para 0105; Page 10, Para 0121; Page 11, Para 0128; Page 12, Para 0141; Page 14, Para 0166); and

determining whether each the component in the set corresponds to a third component class involving components that are present in some but not all of the products, the components corresponding to the second and third component classes collectively forming a component group (Page 14, Para 0164, Para 0166 and Para 0167).

**LY** does not expressly teach identifying a criteria set having a plurality of different states which each correspond to a respective one of the products. **DE** teaches identifying a criteria set having a plurality of different states which each correspond to a respective one of the products (Page 1, CL1, Para 2, L1-3; Page 2, CL1, Para 3, L1-4; Page 3, CL1, Para 5, L1-3), as that allows a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements (Page 1, CL1, Para 2, L1-3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **DE** that included identifying a criteria set having a plurality of different states which each correspond to a respective one of the products, as that would allow a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements.

**LY** does not expressly teach associating with each state of the criteria set a definition of a combination of the components from the component group which is present in the corresponding product. **DE** teaches associating with each state of the criteria set a definition of a combination

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of the components from the component group which is present in the corresponding product (Page 1, CL1, Para 3, L3-4; Page 2, CL2, Para 4, L4-7; Page 3, CL1, Para 5, L1-3; Page 3, CL2, Para 2, L1-7), as that allows a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements (Page 1, CL1, Para 2, L1-3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **DE** that included associating with each state of the criteria set a definition of a combination of the components from the component group which is present in the corresponding product, as that would allow a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements.

10.2 As per Claim 2, **LY** and **DE** teach the method of Claim 1. **LY** also teaches that the products each have therein one of a plurality of different combinations of the components corresponding to the second component class (Page 8, Para 0100; Page 9, Para 0104, Para 0114 and Para 0105; Page 10, Para 0121; Page 11, Para 0128; Page 12, Para 0141; Page 14, Para 0166).

**LY** does not expressly teach that the identifying step includes the step of identifying a criteria subset which is a subset of the criteria set and which has a plurality of different states, each of the products being associated with one of the states of the criteria subset. **DE** teaches that the identifying step includes the step of identifying a criteria subset which is a subset of the criteria set and which has a plurality of different states, each of the products being associated with one of the states of the criteria subset (Page 1, CL1, Para 2, L1-3; Page 2, CL1, Para 3, L1-

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4; Page 3, CL1, Para 5, L1-3), as that allows a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements (Page 1, CL1, Para 2, L1-3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **DE** that included the identifying step including the step of identifying a criteria subset which was a subset of the criteria set and which had a plurality of different states, each of the products being associated with one of the states of the criteria subset, as that would allow a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements.

**LY** does not expressly teach that the identifying step includes the step of associating with each of the states of the initial criteria set a definition of a respective one of the different combinations of components corresponding to the second component class. **DE** teaches that the identifying step includes the step of associating with each of the states of the initial criteria set a definition of a respective one of the different combinations of components corresponding to the second component class (Page 1, CL1, Para 3, L3-4; Page 2, CL2, Para 4, L4-7; Page 3, CL1, Para 5, L1-3; Page 3, CL2, Para 2, L1-7), as that allows a system synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements (Page 1, CL1, Para 2, L1-3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **DE** that included the identifying step including the step of associating with each of the states of the initial criteria set a definition of a respective one of the different combinations of components corresponding to the second component class, as that would allow a system

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synthesis process by creating a system or subsystem from basic components according to a set of performance, cost and functionality requirements.

10.3 As per Claim 3, **LY** and **DE** teach the method of Claim 1. **LY** teaches the step of configuring the components so that at least one of the components in the component group is available in a plurality of types (Page 8, Para 0100; Page 9, Para 0104, Para 0114 and Para 0105; Page 10, Para 0121; Page 11, Para 0128; Page 12, Para 0141; Page 14, Para 0166).

10.4 As per Claim 5, **LY** and **DE** teach the method of Claim 1. **LY** teaches that the configuration system used to configure a computer system or other system will provide a tool to interactively define and upgrade a configured system; generate a graphical representation of the location of the components of the configured system; and generate configuration reports (Page 3, Para 0026; Page 4, Para 0035 and Para 0037; Page 16, Para 0179).

**LY** does not expressly teach that the identifying step includes the step of identifying a set of questions which correspond to the criteria in the criteria set and which have different combinations of possible answers, each state of the criteria set corresponding to a respective combination of answers to the questions. **DE** teaches that the identifying step includes the step of identifying a set of questions which correspond to the criteria in the criteria set and which have different combinations of possible answers, each state of the criteria set corresponding to a respective combination of answers to the questions (Page 1, CL2, Para 2, L6-9; Page 1, CL1, Para 3, L3-4; Page 1, CL2, Para 2, L9-11; Page 3, CL1, Para 4, L1-3), as that allows an automated design and synthesis process which maps a set of input specifications to a hardware

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and software implementation (Page 1, CL1, Para 3) and shortens the design cycle, reduces the complexity of the design task and eases the creation of cost-effective system (Page 1, CL2, Para 2). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **DE** that included the identifying step including the step of identifying a set of questions which corresponded to the criteria in the criteria set and which had different combinations of possible answers, each state of the criteria set corresponding to a respective combination of answers to the questions, as that would allow an automated design and synthesis process which mapped a set of input specifications to a hardware and software implementation and shortened the design cycle, reduced the complexity of the design task and eased the creation of cost-effective system.

10.5 As per Claim 6, **LY** and **DE** teach the method of Claim 5. **LY** does not expressly teach the step of presenting questions from the set of questions to a person, accepting from the person an answer to each question, and configuring a product based on the answers accepted from the person. **DE** teaches the step of presenting questions from the set of questions to a person, accepting from the person an answer to each question, and configuring a product based on the answers accepted from the person (Page 1, CL2, Para 2, L6-9; Page 1, CL1, Para 3, L3-4; Page 1, CL2, Para 2, L9-11; Page 3, CL1, Para 4, L1-3), as that allows an automated design and synthesis process which maps a set of input specifications to a hardware and software implementation (Page 1, CL1, Para 3) and shortens the design cycle, reduces the complexity of the design task and eases the creation of cost-effective system (Page 1, CL2, Para 2). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to

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combine the method of **LY** with the method of **DE** that included the step of presenting questions from the set of questions to a person, accepting from the person an answer to each question, and configuring a product based on the answers accepted from the person, as that would allow an automated design and synthesis process which mapped a set of input specifications to a hardware and software implementation and shortened the design cycle, reduced the complexity of the design task and eased the creation of cost-effective system.

10.6 As per Claim 10, **LY** and **DE** teach the method of Claim 1. **LY** teaches including prior to the determining steps, the step of generating for each component respective component information which includes an identification of all types of component and includes configuration information defining the conditions under which a particular type and quantity of that component are used in each of the products (Page 8, Para 0100; Page 9, Para 0104, Para 0114 and Para 0105; Page 10, Para 0120 and Para 0121; Page 11, Para 0128; Page 12, Para 0141; Page 14, Para 0166).

10.7 As per Claim 11, **LY** and **DE** teach the method of Claim 10. **LY** teaches that the step of generating the component information includes the step of taking engineering limitations into account in preparing the configuration information (Page 8, Para 0100; Page 9, Para 0104, Para 0114 and Para 0105; Page 10, Para 0120 and Para 0121; Page 11, Para 0128; Page 12, Para 0141; Page 14, Para 0166).

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10.8 As per Claim 12, **LY** and **DE** teach the method of Claim 1. **LY** also teaches after the determining, identifying and associating step, the step of preparing a flowchart which graphically represents a mapping between the different states of the criteria set and the definitions of combinations of the components from the component group (Figs. 6-10; Page 10, Para 0120 and Para 0121; Page 12, Para 0141).

10.9 As per Claim 13, **LY** and **DE** teach the method of Claim 1. **LY** also teaches the step of configuring one of the components which corresponds to the first component class so that it can removably receive therein a plurality of other the components (Page 4, Para 0037 and Para 0038; Page 7, Para 0083; Page 8, Para 0092; Page 14, Para 0164 to Para 0169).

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lynch et al. (LY)** (U.S. Patent application 2002/0035463) in view of **Deang (DE)** (IEEE, 1998), and further in view of **Mori et al. (MO)** (IEEE, 1993).

11.1 As per Claim 4, **LY** and **DE** teach the method of Claim 1. **LY** does not expressly teach determining whether each component in the set corresponds to an ancillary component class involving components that are separate from but related to at least some of the products, the component; and including in the component group the components corresponding to the ancillary class. **MO** teaches determining whether each component in the set corresponds to an ancillary component class involving components that are separate from but related to at least some of the products, the component; and including in the component group the components corresponding

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to the ancillary class (Page 307, CL2, Para 2), as in addition to components specified explicitly, it is necessary to add components necessary to meet the user input requirements (Page 306, CL2, Para 2). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **MO** that included determining whether each component in the set corresponds to an ancillary component class involving components that are separate from but related to at least some of the products, the component; and including in the component group the components corresponding to the ancillary class, as in addition to components specified explicitly, it would be necessary to add components necessary to meet the user input requirements.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lynch et al. (LY)** (U.S. Patent application 2002/0035463) in view of **Deang (DE)** (IEEE, 1998), and further in view of **Bannai et al. (BA)** (U.S. Patent 6,647,428).

12.1 As per Claim 7, **LY** and **DE** teach the method of Claim 1. **LY** does not expressly teach that each of the products is a telecommunications product having transport interfaces and tributary interfaces. **BA** teaches that each of the products is a telecommunications product having transport interfaces and tributary interfaces (Fig. 4; CL1, L10-13 and L20-25), as that facilitates end-to-end transport of multiple services originating at a variety different types of tributary interfaces located at low speed ingress ports at customer premises (CL1, L10-13 and L20-25). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **BA** that included each of



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the products being a telecommunications product having transport interfaces and tributary interfaces, as that would facilitate end-to-end transport of multiple services originating at a variety different types of tributary interfaces located at low speed ingress ports at customer premises.

**LY** does not expressly teach that the identifying step includes the step of including within the criteria set at least one of a network element type, a speed for the transport interfaces, whether the transport interfaces are to be protected, a reach of the transport interfaces, whether ATM interface capability is to be present, a speed for the tributary interfaces, a quantity of the tributary interfaces, whether the tributary interfaces are to be protected, and a reach of the tributary interfaces. **BA** teaches that the identifying step includes the step of including within the criteria set at least one of a network element type, a speed for the transport interfaces, whether the transport interfaces are to be protected, a reach of the transport interfaces, whether ATM interface capability is to be present, a speed for the tributary interfaces, a quantity of the tributary interfaces, whether the tributary interfaces are to be protected, and a reach of the tributary interfaces (Fig. 2; CL3, L43-67; CL1, L26-28), as that facilitates delivering data from a variety of different kinds of external interfaces to corresponding compatible external interfaces elsewhere in the network (CL3, L43-46), and enable data to be rerouted in the event of failure (CL1, L27). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine the method of **LY** with the method of **BA** that included the identifying step including within the criteria set at least one of a network element type, a speed for the transport interfaces, whether the transport interfaces are to be protected, a reach of the transport interfaces, whether ATM interface capability is to be present, a speed for the tributary

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interfaces, a quantity of the tributary interfaces, whether the tributary interfaces are to be protected, and a reach of the tributary interfaces, as that would facilitate delivering data from a variety of different kinds of external interfaces to corresponding compatible external interfaces elsewhere in the network, and enable data to be rerouted in the event of failure.

### ***Arguments***

13.1 As per the applicant's argument that "In the present case, a prima facie case of obviousness cannot be maintained for at least two reasons. First, neither Mori, Iizuka, Deang, Lynch, nor Bannai provides a suggestion or motivation to combine the references. Second, even assuming for the sake of argument that the references did suggest or motivate a combination of the references to a person of ordinary skill in the art at the time of the invention, Mori, Iizuka, Deang, Lynch, and Bannai, whether considered alone, in combination with one another, or in combination with information generally available to those of ordinary skill in the art at the time of the invention, still fail to disclose all of the elements of the pending claims. ...

According to the M.P.E.P., "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge [that was] generally available to one of ordinary skill in the art" at the time of the invention. The "fact that references can be combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination" or modification. ... and

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In the present case, the Examiner is improperly using the Applicant's disclosure as a blueprint for piecing together various elements of Mori, Iizuka, Deang, Lynch, and Bannai. In fact, with respect to Claims 1-6 and 10-13, the Examiner has attempted to piece together four different references using the blueprint of the present disclosure", the examiner has used references Mori, Deang, Lynch, and Bannai in this Office action and presented valid motivations to combine the references provided in those references in all rejections involving combining the references.

13.2 As per the applicant's argument that "with respect to Claim 7, the Examiner has attempted to piece together five different references using the blueprint of the present disclosure where one of those references, Bannai, is not within the same field of endeavor as the other cited references. Bannai is directed toward a communication network architecture and a packet format for transporting multiple services in connectionless packet-based networks. In contrast, Mori, Iizuka, Deang, and Lynch, are directed towards systems which aid designers in the process of complex product design. The Examiner is required to determine what is analogous prior art for the purposes of analyzing the obviousness of the subject matter at issue. To rely on a reference as the basis of a rejection for the applicant's invention, the reference "must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." Bannai, being directed toward a communication network architecture and a packet format for transporting multiple services in connectionless packet-based networks, is not within the field of the Applicant's endeavor. Furthermore, the Bannai invention is not reasonably pertinent to the particular problem with which Applicant is concerned. "A reference is reasonably pertinent if ... it is one which, because of the matter with

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which it deals, logically would have commended itself to an inventor's attention in considering his problem." Bannai, which deals with communication network architectures, would not commend itself to the attention of an inventor considering the problem of developing a system to aid in complex product design. One skilled in the art would not be motivated to combine Bannai with the other cited references to achieve the elements of Claim 7 without the blueprint provided by Claim 7", the examiner respectfully disagrees. The Lynch reference teaches the method of interactively configuring a system such as a computer system or other system involving required components, components that are required but vary in quantity and type and optional components using a computer based system. The Bannai reference deals with telecommunications product involving transport interface, tributary interface, switching card and controller and various components of those interfaces and cards. It would have been obvious to one of ordinary skill in the art of designing a telecommunications product, to interactively design telecommunications product using the methodology and the computer based configuration system of Lynch because as per Lynch, as system specifications become more customized and varied, configuration alternatives increase and the task of configuring a system becomes complex; and this increased complexity has resulted in a need for computer based assistance with configuration process (Page 1, Para 0005).

13.3 As per the applicant's argument that "the Examiner has merely stated that at the time the present invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Mori, Iizuka, Deang, Lynch, and Bantam. However, even a determination that it would have been obvious to one of ordinary skill in the art at the time of the

invention to try the proposed combination is not sufficient to establish obviousness", valid motivations to combine the references provided in those references in all rejections involving combining the references.

13.4 As per the applicant's argument that "Lynch fails to disclose a first component class, let alone determining whether each component in said set corresponds to a first component class involving components that are required in each said product without variation in quantity and type, as recited in Claim 1. Furthermore, the Examiner has not pointed out any portion of Lynch which discloses a first component class involving components that are required in each said product without variation in quantity and type, as recited in Claim 1", the examiner has pointed in this Office Action to the portions of Lynch reference which deal with components that are required in each said product without variation in quantity and type. Lynch does not use the term "first component class" as used by the applicant. However, the term "components required" in the system as specified by Lynch is functionally equivalent to the Applicant's term "components that are required in each said product without variation in quantity and type", as recited in Claim 1.

13.5 As per the applicant's argument that "Claim 1 recites, in part, "determining whether each said component in said set corresponds to a second component class involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type." The Examiner states that Mori discloses this element. (Mori Page 306, Col. 2, Para 1, lines 3-5; Page 307, Col. 1, Para 5 lines 5-6). However, Mori merely discloses that a user

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is required to input the quantity of components required of a certain type for a given configuration. (Mori, Page 307, Col. 1, Para 5 lines 5-6). Mori fails to disclose a second component class, let alone determining whether each said component in said set corresponds to a second component class involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type, as recited in Claim 1. Furthermore, the Examiner has not pointed out any portion of Mori which discloses a second component class involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type”, the examiner has pointed in this Office Action to the portions of Lynch reference which deal with components that are required in each said product but that vary among said products with respect to at least one of quantity and type. Lynch does not use the term “second component class” as used by the applicant. However, the term “components required in each product in varying quantity and type” as specified by Lynch is functionally equivalent to the Applicant’s term “second component class involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type”, as recited in Claim 1.

13.6 As per the applicant’s argument that “Claim 1 recites, in part, "determining whether each said component in said set corresponds to a third component class involving components that are present in some but not all of said products, the components corresponding to said second and third component classes collectively forming a component group." The Examiner states that Iizuka discloses this element (Iizuka, Page 442, Col. 1, Para 2). However, Iizuka merely discloses a system that can guide engineers in the selection of an appropriate component to be

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included in a configuration using interconnectability relationships between various pieces of equipment. (Iizuka, Page 442, Col. 1, Para 2, lines 10-13). Iizuka fails to disclose second and third component classes, let alone determining whether each said component in said set corresponds to a third component class involving components that are present in some but not all of said products, or that the components corresponding to said second and third component classes collectively forming a component group, as recited in Claim 1. Furthermore, the Examiner has not pointed out any portion of Iizuka which discloses: (1) a third component class involving components that are present in some but not all of said products; or (2) that the components corresponding to said second and third component classes collectively forming a component group”, the examiner has pointed in this Office Action to the portions of Lynch reference which deal with components that are required in each said product but that vary among said products with respect to at least one of quantity and type; the examiner has also pointed to the portions of Lynch reference which deals with components that are present in some but not all of said products (optional components). Lynch does not use the terms “second component class” and “third component class” as used by the applicant. However, the terms “components required in each product in varying quantity and type” and the “optional components” as specified by Lynch are functionally equivalent to the Applicant’s term “second component class involving components that are required in each said product but that vary among said products with respect to at least one of quantity and type”, and “a third component class involving components that are present in some but not all of said products “ as recited in Claim 1. Lynch does not specifically state the components corresponding to the second and third component classes collectively forming a component group. However, Lynch provides the capability to select the quantity and

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type of the required components that can vary in the product and the capability to specify the optional components through user inputs interactively, thus providing the same capability that the applicant provides by grouping the components in the second component class and in the third component class. Therefore, Lynch's scheme for selecting the components is functionally equivalent to the Applicant's method.

13.7 As per the applicant's argument that "Claim 2 recites, in part, "said products each have therein one of a plurality of different combinations of the components corresponding to said second component class." The Examiner states that Mori discloses this element. (Mori Page 306, Col. 2, Para 1, lines 3-5; Page 307, Col. 1, Para 5 lines 5-6). However, as discussed above, Mori merely discloses that a user is required to input the quantity of components required of a certain type for a given configuration. (Mori, Page 307, Col. 1, q,15 lines 5-6). Mori fails to disclose a second component class, let alone that said products each have therein one of a plurality, of different combinations of the components corresponding to said second component class, as recited in Claim 2", the examiner has pointed in this Office Action to the portions of Lynch reference which deal with components that are required in each said product but that vary among said products with respect to at least one of quantity and type. Lynch does not use the term "second component class" as used by the applicant. However, the term "components required in each product in varying quantity and type" as specified by Lynch is functionally equivalent to the Applicant's term "said products each have therein one of a plurality of different combinations of the components corresponding to said second component class" as recited in Claim 2. See Paragraph 10.2 above.



13.8 As per the applicant's argument that "Claim 10 recites that the method also includes, prior to the determining steps, the step of "generating for each said component respective component information which includes an identification of all types of the component and includes configuration information defining the conditions under which a particular type and quantity of that component are used in each of said products." The Examiner states that Deang discloses this element. (Deang, Page 3, Col. 2, Para 2, lines 4-7 and Col. 2, Para 3). Deang merely discloses that each component may be represented in a database by a set of facts which specify properties that describe the components and a set of rules which specify how the facts about the components are to be used during the design process. (Deang, Page 3, Col. 2, T2, lines 4-7). In addition, Deang discloses that the facts regarding a component consist of the name of a component, the component value, how the component is organized in the functional hierarchy, and how the component should be connected with other components. (Deang, Page 3, Col. 2, Para 3). However, Deang fails to disclose generating configuration information that includes an identification of all types of the component and configuration information defining the conditions under which a particular type and quantity of that component are used in each of said products, as recited in Claim 10", the examiner has pointed in this Office Action to the portions of Lynch reference which deal with the method also including, prior to the determining steps, the step of "generating for each said component respective component information which includes an identification of all types of the component and including configuration information defining the conditions under which a particular type and quantity of that component are used in each of said products as recited in Claim 10. See Paragraph 10.6 above.

13.9 As per the applicant's argument that "Claim 12 recites the step of "preparing a flowchart which graphically represents a mapping between said different states of said criteria set and said definitions of combinations of the components from said component group." The Examiner states that Lynch discloses this element. (Lynch, FIGURES 6-10). Figures 6-10 of Lynch, pointed out by the examiner, merely illustrate the steps of the Lynch method. Lynch Fails to disclose preparing a flowchart which graphically represents a mapping between said different states of said criteria set and said definitions of combinations of the components from said component group, as recited in Claim 12. Furthermore, the Examiner has not pointed out any portion of Lynch that discloses this limitation", the examiner has pointed in this Office Action to the portions of Lynch reference which deal with preparing a flowchart which graphically represents a mapping between said different states of said criteria set and said definitions of combinations of the components from said component group as recited in Claim 12. See Paragraph 10.8 above.

13.10 As per the applicant's argument that "Claim 13 recites "configuring one of said components which corresponds to said first component class so that it can removably receive therein a plurality of other said components." The Examiner states that Lynch discloses this element. (Lynch, Abstract, Lines 1-3, Para 0035-0038). Lynch merely discloses that its invention can create a structural hierarchical model of a system and that the relationships between components in the system can be defined. (Lynch, Para 0037- 0038). However, Lynch fails to disclose configuring one of said components which corresponds to said first component class so

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that it can removably receive therein a plurality of other said components, as recited in Claim 13", the examiner has pointed in this Office Action to the portions of Lynch reference which deal with components that are required in each said product without variation in quantity and type so that it can removably receive therein a plurality of other said components. Lynch does not use the term "first component class" as used by the applicant. However, the term "components required" in the system as specified by Lynch is functionally equivalent to the Applicant's term "components that are required in each said product without variation in quantity and type", which he calls first component class. Lynch provides for updating the configuration of the system which provides for adding variable components to the basic required components. This is functionally equivalent to the applicant's "configuring one of said components which corresponds to said first component class so that it can removably receive therein a plurality of other said components." See Paragraph 10.9.

### ***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 703-305-0043. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

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If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska, can be reached on (703) 305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

K. Thangavelu  
Art Unit 2123  
May 20, 2004



KEVIN J. TESKA  
SUPERVISORY  
PATENT EXAMINER